

Part-4: Refine lockdown

$\mathbf{Q} = \{\text{prep_vpurge}, \text{alt_temp}, \text{alt_psi}, \text{risk_assess}, \text{safe_status}\}$

$\mathbf{q}_0 : \text{prep_vpurge}$

$\Sigma 1 = \{\text{initiate_purge}, \text{tcyc_comp}, \text{psicyc_comp}, \text{check_risk}\}$

$\Sigma 2 = \{\text{lock_doors}, \text{unlock_doors}\}$

$\mathbf{V} = \{\text{risk} : \mathbb{R}\}$

$\Lambda = \{$

$\rightarrow \text{prep_vpurge}$

$\text{prep_vpurge} \xrightarrow{\text{initiate_purge} / \text{lock_doors}} \text{alt_temp}$

$\text{prep_vpurge} \xrightarrow{\text{initiate_purge} / \text{lock_doors}} \text{alt_psi}$

$\text{alt_temp} \xrightarrow{\text{tcyc_comp}} \text{risk_assess}$

$\text{alt_psi} \xrightarrow{\text{psicyc_comp}} \text{risk_assess}$

$\text{risk_assess} \xrightarrow{\text{check_risk} [\text{risk} > 1\%]} \text{prep_vpurge}$

$\text{risk_assess} \xrightarrow{\text{check_risk} [\text{risk} \leq 1\%] / \text{unlock_doors}} \text{safe_status}$

$\text{safe_status} \rightarrow \text{end}$

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